

REMARKS

Claims 1-16 remain present in this application.

The specification and claims 1, 6, 11 and 12 have been amended. Reconsideration of the application, as amended, is respectfully requested.

Amendments to the Specification and Claims

The specification and claims have been amended to specify the features of the sweep-type fingerprint sensor. Although the features are not specifically described in the originally filed specification, commonly assigned U.S. Appl. No. 10/441,022 (US Publication No. 2004/0234110) discloses the feature of the sweep-type fingerprint sensor. This U.S. Appl. No. 10/441,022 is discussed on page 4 of the originally filed application, and discusses the features of the sweep-type fingerprint sensor in paragraphs [0010] and [0028]. Accordingly, it is respectfully submitted that the amendments to the specification do not contain new matter.

Objection to the Claims

Claims 1, 6, 11 and 12 stand objected to for certain informalities. In view of the foregoing amendments, in which the Examiner's helpful suggestions have been followed, it is respectfully submitted that this objection has been addressed. Reconsideration and withdrawal of any objection to the claims are respectfully requested.

Rejection under 35 USC 103

Claim 1 stands rejected under 35 USC 103 as being unpatentable over Jarosz, U.S. Patent 6,494,380, in view of Lin et al., U.S. Patent 6,360,953 and Nobuo, Japanese document 2000-076412A. This rejection is respectfully traversed.

Claims 2, 3, 6 and 8 stand rejected under 35 USC 103 as being unpatentable over Jarosz in view of Lin et al. and Nobuo, and further in view of Manansala, U.S. Patent 6,653,723. This rejection is respectfully traversed.

Claims 4 and 5 stand rejected under 35 USC 103 as being unpatentable over Jarosz in view of Lin et al. and Nobuo, and further in view of Lofberg, U.S. Patent 4,582,985. This rejection is respectfully traversed.

Claims 7, 9 and 10 stand rejected under 35 USC 103 as being unpatentable over Jarosz in view of Lin et al., Nobuo and Manansala, and further in view of Chou, U.S. Publication 2004/0179718. This rejection is respectfully traversed.

Claim 11 stands rejected under 35 USC 103 as being unpatentable over Jarosz in view of Lin et al. and Nobuo, and further in view of Tschudi et al., U.S. Patent 6,785,407. This rejection is respectfully traversed.

Claims 12 and 14 stand rejected under 35 USC 103 as being unpatentable over Jarosz in view of Lin et al., Nobuo, and Tschudi et al., and further in view of Manansala. This rejection is respectfully traversed.

Claims 13, 15 and 16 stand rejected under 35 USC 103 as being unpatentable over Jarosz in view of Lin et al., Nobuo, Tschudi et al., and Manansala, and further in view of Chou. This rejection is respectfully traversed.

Jarosz discloses an **area-type** fingerprint sensor that is cut into several units, such as nine units, in FIG. 2. The area-type sensor senses a fingerprint that is **stationarily** placed thereon. Thus, the nine units of the sensor sense nine fingerprint fragment images as the finger is **stationarily** placed thereon. Since a gap "d" exists between the adjacent units, the fingerprint fragment images **does not overlap** with one another. The patent to Jarosz is completely different from this application and the drawbacks thereof have been discussed in the specification (see pages 1 and 2) of this application.

Lin also discloses an **area-type** fingerprint sensor, which is the same as Jarosz, because the thumb has to press firmly against the print reader (see column 3, lines 46-47 and column 4, line 6). In addition, Lin does not teach the exact dimensional limitation (the shortest distance from the low-stress region to each of the long sides being substantially equal to 2 mm, and the shortest distance from the low-stress region to each of the short sides being substantially equal to 2 mm) in the low-stress region. The Examiner's attention is also drawn to the fact that the lower right quadrant of the smart card contains the different condition of the shortest distance from the low-stress region to each of the long sides being substantially equal to **1 or 0 mm**, and the shortest distance from the low-stress region to each of the short sides being substantially equal to **1 or 0 mm**.

Nobuo also discloses an **area-type** fingerprint sensor, which is the same as Jarosz. In addition, Nobuo does not teach the exact dimensional limitation (the shortest distance from the low-stress region to each of the long sides is substantially equal to 2 mm, and the shortest distance from the low-stress region to each of the short sides is substantially equal to 2 mm) in the low-stress region. The Examiner's attention is also drawn to the fact that the corner edge of

the smart card contains the different condition of the shortest distance from the low-stress region to each of the long sides being substantially equal to **1 or 0 mm**, and the shortest distance from the low-stress region to each of the short sides being substantially equal to **1 or 0 mm**.

Independent claim 1 of the present application discloses a card device comprising:

a substrate having two long sides and two short sides; and

a fingerprint sensor, which is embedded into the substrate and has an exposed fingerprint sensing surface and **acquires a plurality of fingerprint fragment images of a finger as the finger sweeps across the fingerprint sensor, wherein two adjacent ones of the plurality of fingerprint fragment images partially overlap with each other**, the fingerprint sensor is disposed in a rectangular low-stress region having a dimension substantially smaller than or equal to 30 mm * 22 mm, the shortest distance from the low-stress region to each of the long sides is substantially equal to 2 mm, and the shortest distance from the low-stress region to each of the short sides is substantially equal to 2 mm.

These features are different from those disclosed in Jarosz, Lin et al. and Nobuo, because the working principle of a sweep-type fingerprint sensor is different from that of an area-type fingerprint sensor. Since the sweep-type fingerprint sensor of the present invention is smaller than the area-type fingerprint sensor of the prior art utilized by the Examiner, the intensity of the sensor of the invention is smaller than that of the prior art. Accordingly, the ability against the damage of the invention is smaller than that of the prior art. Thus, the sensitivity of the present invention to an external force is higher than that of the prior art. This is why the prior art does not analyze the dimensional limitations of the location of the low-stress region.

Claim 2 has been amended to state that the rectangular low-stress region has a dimension

substantially equal to 22 mm * 22 mm. Manansala does not teach that the dimension is equal to 22 mm * 22 mm, because the dimension of Manansala is 14 mm*4.3 mm (see FIG. 12A and column 8, lines 45-43).

Claim 3 has been amended to state that the rectangular low-stress region has the dimension substantially equal to 22 mm * 14 mm. Manansala does not teach that the dimension is equal to 22 mm * 14 mm, because the dimension of Manansala is 14 mm*4.3 mm (see FIG. 12A and column 8, line 45-43).

In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art utilized by the Examiner fails to teach or suggest the device of independent claim 1 and its dependent claims. Accordingly, all claims should now be in condition for allowance. Reconsideration and withdrawal of the 35 USC 103 rejection are respectfully requested.

Conclusion

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

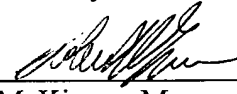

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Attachments